Top Secret

NATIONAL PHOTOGRAPHIC INTERPRETATION CENTER

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109

basic imagery interpretation report

Pancevo Airframe Plant (S)

STRATEGIC WEAPONS INDUSTRIAL FACILITIES

[redacted] 25X1

YUGOSLAVIA

Top Secret

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JULY 1981

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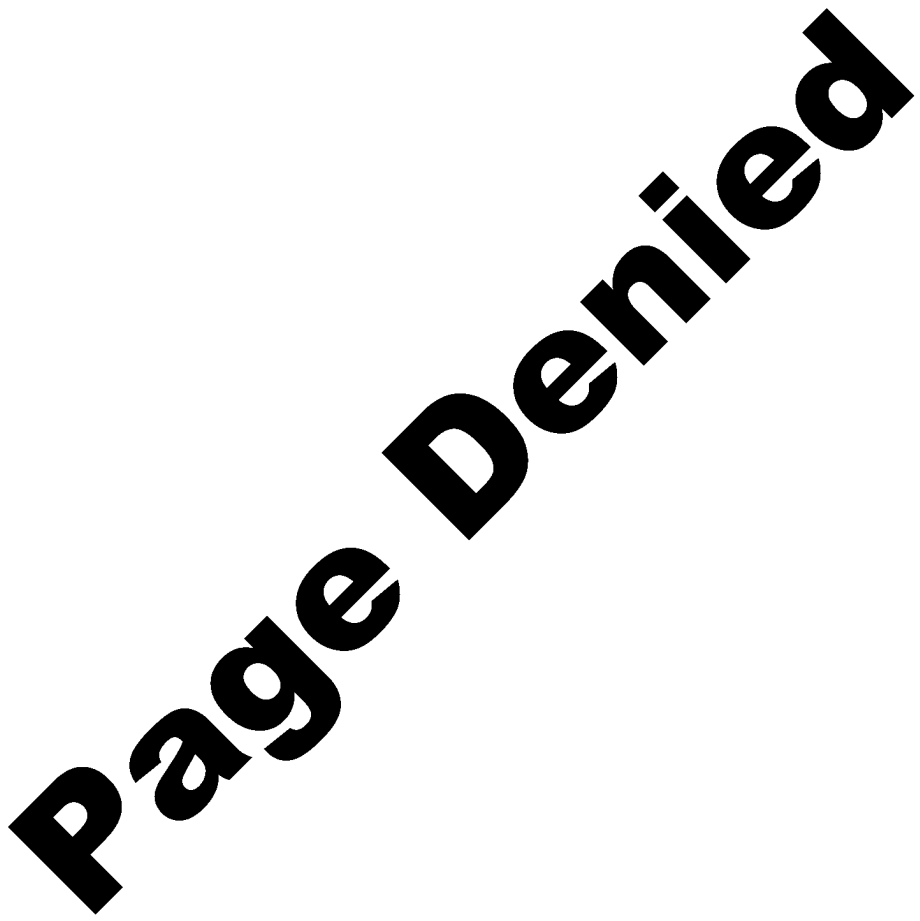

INSTALLATION OR ACTIVITY NAME					COUNTRY
Pancevo Airframe Plant					YO
UTM COORDINATES	GEOGRAPHIC COORDINATES	CATEGORY	BE NO.	COMIREX NO.	NIETB NO.
NA	44-51-10N 020-39-50E				25X1

MAP REFERENCE

DMA. USATC, Series 200, Sheet 0251-17, scale 1:200,000

LATEST IMAGERY USED	NEGATION DATE (If required)	
	NA	25X1

ABSTRACT

1. (S/D) This initial NPIC basic report on Pancevo Airframe Plant, Yugoslavia, satisfies the basic reporting requirement for this installation. As of [redacted] 25X1 Pancevo Airframe Plant consisted of 46 significant buildings and structures, with 52,471 square meters of usable floorspace. An additional 3,520 square meters of floorspace remained under construction. The information cutoff date for this report is [redacted] 25X1

2. (S/D) This report consists of a description of Pancevo Airframe Plant, a construction chronology, a summary of aircraft production activity, a location map, four annotated photographs, three small-format photographs, a table of mensural and chronological data, and a table of aircraft observations.

INTRODUCTION

3. (S/D) Pancevo Airframe Plant (Figure 1) is in central Pancevo (Figure 1), 1 nautical mile (nm) east of the Danube River at an elevation of 61 meters. The plant is bounded by a brick/ceramics plant on the north and by civilian housing on the other sides (Figure 2). The plant is connected to the test and flyaway field, Utva Airfield [redacted] by a graded-earth taxiway approximately 500 meters long. Pancevo Airfield [redacted] 2 nm north-northwest of the plant, is used as a secondary flight-test field. 25X1 25X1

4. (S/D) Pancevo Airframe Plant is secured by a combination of walls and fences of various heights. Access to the plant is by two vehicle/pedestrian entrances and a taxiway entrance/exit. Room for future expansion is extremely limited, and most future construction will probably take place within the present plant boundaries.

BASIC DESCRIPTION

5. (S/D) Pancevo Airframe Plant occupies an area of 15.2 hectares. It consists of 46 significant buildings and structures (Figure 3 and Table 1): two administration/engineering buildings (items 13 and 16), a final assembly building (item 18), an assembly/final assembly

[redacted] 25X1

[redacted] 25X1

building (item 22), two assembly buildings (items 8 and 29), an engineering building (item 14), a fabrication building under construction (item 33), two engineering/shop buildings (items 10 and 31), a metals shop (item 11), five shop buildings (items 12, 28, 30, 32, and 41), five subassembly buildings (items 5, 9, 15, 21, and 43), a compressor building (item 20), a machine shop (item 35), a checkout building (item 37), two vehicle storage/maintenance buildings (items 4 and 42), a communications building (item 27), a warehouse (item 7), 17 storage buildings, and a support building.

6. (S/D) As of [redacted] Pancevo Airframe Plant contained 52,471 square meters of usable floorspace, with an additional 3,520 square meters under construction. A functional breakdown of usable floorspace at the plant is as follows.

Function	Floorspace (sq m)	Percent of Total
Admin/engr	8,069	15.4
Fabrication	24,678	47.0
Direct support	10,541	20.1
General support	9,183	17.5
Total	52,471	100.0

25X1

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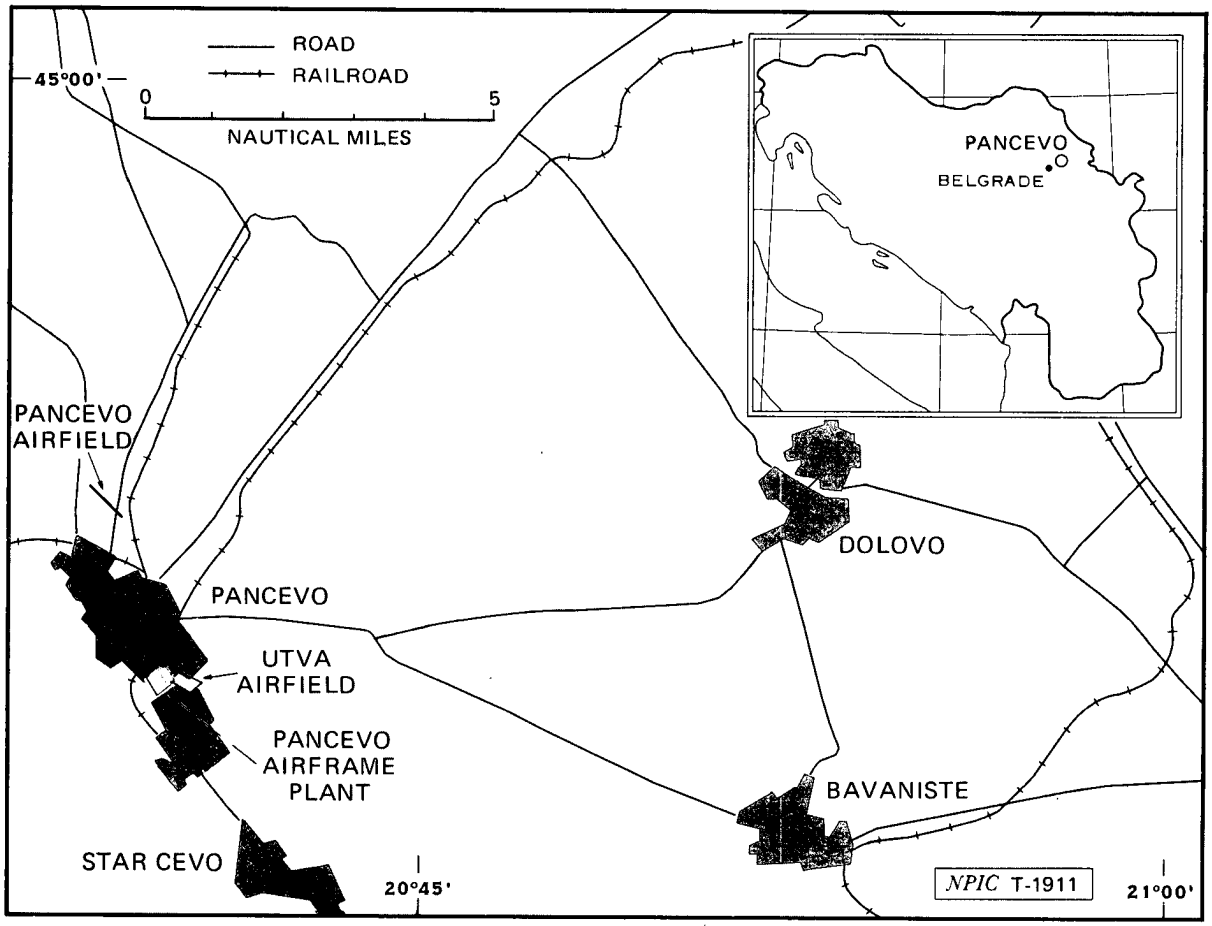

FIGURE 1. LOCATION OF PANCEVO AIRFRAME PLANT, YUGOSLAVIA

[redacted] [redacted] 25X1

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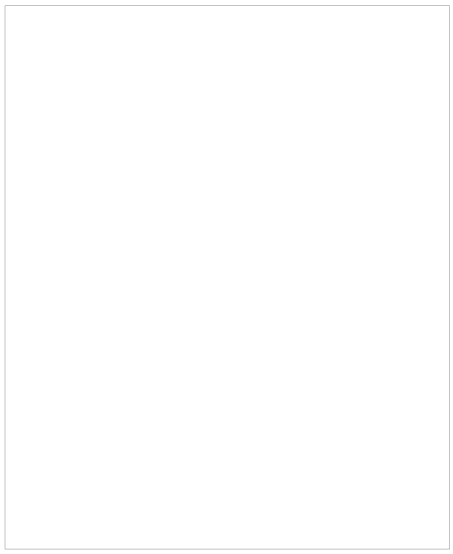

FIGURE 4. UTVA AIRFIELD

7. (S/D) Utva Airfield (Figure 4), the test and flyaway field for the plant, is 500 meters to the east-southeast and is connected to the plant by a graded-earth taxiway. The airfield consists of a 505- by 51-meter serviceable sod runway delineated by corner markers, a circular helicopter landing pad, and two landing Ts, one at each end of the runway. The airfield has no permanent structures.

Construction Chronology

8. (S/D) The earliest available coverage of Pancevo Airframe Plant was aircraft photography of [redacted] At that time the plant was at full operational status and production of aircraft was underway. The plant comprised 14 significant buildings and structures, with 2,316 square meters of usable floorspace. Buildings and structures on [redacted] most of which were subsequently enlarged, were an assembly building (item 22, Figure 3 and Table 1), four subassembly buildings (items 5, 9a and b, 15a and b, 15d through f, and 21a and b), an administration building (item 13a), an administration/engineering building (items 16a through c), an engineering building (item 14a), a metals shop (items 11a and b), a shop building (item 12a), a maintenance building (item 10a), a vehicle maintenance building (item 4a), and two storage buildings (items 23 and 24).

9. (S/D) Between [redacted] eight new buildings were completed and three existing buildings were enlarged. Total usable plant floorspace increased by 6,143 square meters to 26,459 square meters. Buildings completed during this period were a final assembly building (item 18), a communications building (item 27), and six storage buildings (items 1, 2, 3, 17a, 19, and 25a). Additions to existing buildings were an engineering section (item 9c) to a subassembly building, an engineering section (item 10b) and two shop sections (items 10c and 10d) to a maintenance building (changing the building function to engineering/shop), and a storage section (item 12b) to a shop.

10. (S/D) Between [redacted] eight new buildings were completed and seven existing buildings were enlarged. Total usable plant floorspace increased by 14,193 square meters to 40,652 square meters. Buildings constructed during this period were an assembly building (item 29), a checkout building (items 37a through 37d), a shop building (item 30a), a compressor building (item 20), a warehouse (item 7), two storage buildings (items 34 and 46), and a support building (item 26). Additions to existing buildings were a storage section (item 4b) to a vehicle maintenance building, a support section (item 9d) to an engineering/shop building, a shop section (item 11c) to a metals shop, an engineering section (item 13b) to an administration/engineering building, a prototype section (item 14b) to an engineering building, a support section (item 16d) to an administration/engineering building, and a final assembly section (item 22c) to an assembly/final assembly building.

11. (S/D) Between [redacted] 15 new buildings were completed and nine existing buildings were enlarged. This construction added 11,819 square meters of floorspace, bringing the plant total to 52,471 square meters. Buildings constructed during this period were an assembly building (item 8), a subassembly building (item 43), a machine shop (item 35), three shop buildings (items 28, 32, and 41), an engineering/shop building (item 31), a vehicle maintenance/storage building (item 42), and seven storage buildings (items 6, 36, 38, 39, 40, 44, and 45). Additions to existing buildings consisted of a storage section (item 12c) to a shop building, a storage section (item 14c) and a support section (item 14d) to a subassembly building, a section (item 17b) to a storage building, a support section (item 21c) to a subassembly building, a support section (item 22e) to the assembly/final assembly building, a section (item 25b) to a storage building, a support section (item 30b) to a shop, and two support sections (items 37e and f) to the checkout building.

12. (S/D) One additional building, a fabrication building (item 33), remained under construction on [redacted] The completion of this building will add 3,520 square meters of floorspace, bringing the total to 55,991 square meters. 25X1

Production History

13. (S/D) Aircraft production was underway at Pancevo on [redacted] the date of the earliest available coverage of the plant. Two distinct aircraft types were observed; one was probably the Type-214D bomber/trainer, and the other was a twin-seat trainer aircraft, either the Aero-2 or Aero-3. Subsequent coverage (Table 2) through [redacted] was not of sufficient interpretability to confirm aircraft types. These aircraft may have been in production through 1959 or 1960,[6] but lack of [redacted] 25X1 25X1

14. (S/D) The first aircraft confirmed to be in production at Pancevo was the Utva-60, a production version of the Utva-56 prototype first reported in the open press in 1959.[7] The Utva-60 (Figure 5) is a high-wing, propeller-driven, single-engine monoplane powered by a 270-horsepower (hp) Lycoming GO-480-131A6 engine.[8] This aircraft is produced in five versions: utility/airtaxi (U-60-AT1), trainer (U-60-AT2), agricultural (U-60-AG), ambulance (U-60-AM), and floatplane (U-60-H). All versions except the U-60-H are capable of carrying underwing rocket pods.[9] The Utva-60 was first observed at the plant on [redacted] and was seen through [redacted] Only one Utva-60 has been observed at Pancevo since mid-1976, suggesting an end to the production run. However, assembly of this aircraft probably continued through 1978 or 1979 at Batajnica Aircraft Assembly Plant [redacted] 25X1 25X1 25X1 25X1 25X1 25X1 25X1 25X1 25X1

15. (S/D) Production of the Utva-65 Privednik (Figure 6), a low-wing, single-engine agricultural monoplane, probably began in 1966.[7] The first Utva-65 was observed at the plant on [redacted] Two versions of this aircraft were built. The first, powered by a 270-hp Lycoming GO-480-B1A6 six-cylinder 25X1 25X1

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FIGURE 5. YUGOSLAVIAN UTVA-60

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Table 2.
Aircraft Observations at Pancevo Airframe Plant Including Utva Airfield

This table in its entirety is classified TOP SECRET RUFF

Date	Mission	Type 214D	Aero 2/3	Utva-60	Utva-65/67	Utva-66	Utva-75	Utva-60/66	M-18 Dromader
	Aircraft	4 p*	28						
	Aircraft	5 p	17						
	Aircraft		5 p						
	1009-1**								
					1				
	1103-2			3					
				2					
				1					
					4			6	
					6				
					8			1	
					9	1			
				4	4	2			
				4	13				
				2	9	3	1		
					6	1			
					7	3	2		
					7	2	2		
					3	2	2		
				1	4	1	8		2
					4	1	7		
					4	1	3		1
					6	3	4		2
					4	3	2		
					5	1	6		2
					2	1	10		

*p — probable.
**Image quality not sufficient for identification of aircraft.

piston engine, remained in series production until 1973. The second version, designated Utva-67 Super Privednik, entered series production in 1973 and is still being produced in substantial numbers (Table 2). This version is powered by a 350-hp Lycoming IGO-540-A1C six-cylinder piston engine.[6]

16. (S/D) Production of the Utva-66, a direct follow-on of the Utva-60, began in 1974 at Pancevo. The Utva-66 (Figure 7) is virtually identical to the Utva-60 but features an upgraded engine, the Lycoming GO-480-131A6.[7] This aircraft is produced in three versions: utility/glider towing (Utva-66), ambulance (Utva-66-AM), and floatplane (Utva-66-H).[2] Continued observations at the plant (Table 2) indicate that the Utva-66 is still in production at Pancevo. This aircraft, like the Utva-60, is also being assembled in small numbers at Batajnica Aircraft Assembly Plant.[4]

17. (S/D) The latest production item at Pancevo is the Utva-75, a long-wing, single-engine monoplane powered by a 180-hp AVCO Lycoming IO-360-B1F flat-four piston engine.[8] The Utva-75 (Figure 8) is capable of four roles: training, glider towing, liaison, and close support. For the close-support role, the Utva-75 is equipped with bombs or underwing rocket

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25X1

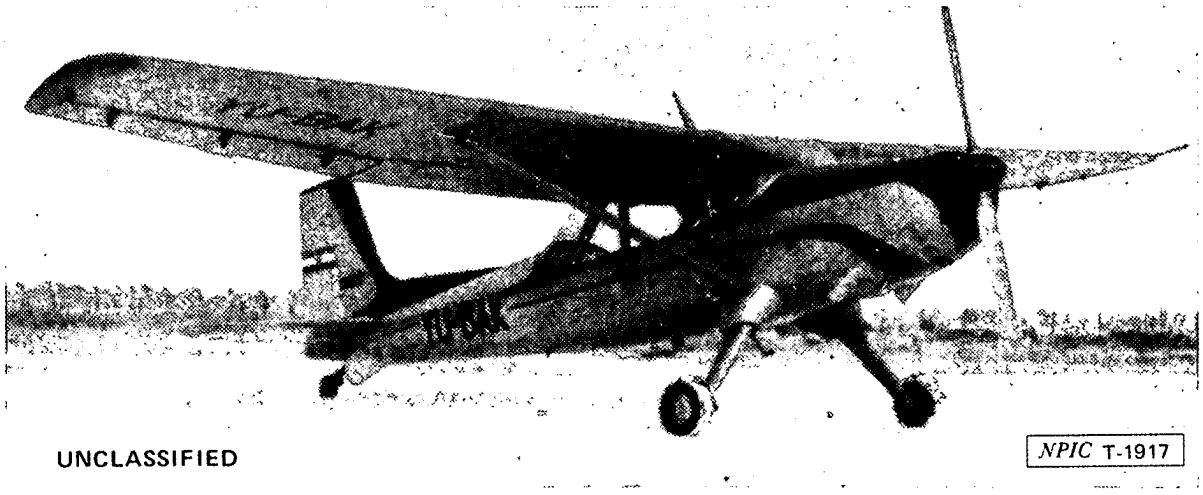

FIGURE 7. YUGOSLAVIAN UTVA-66

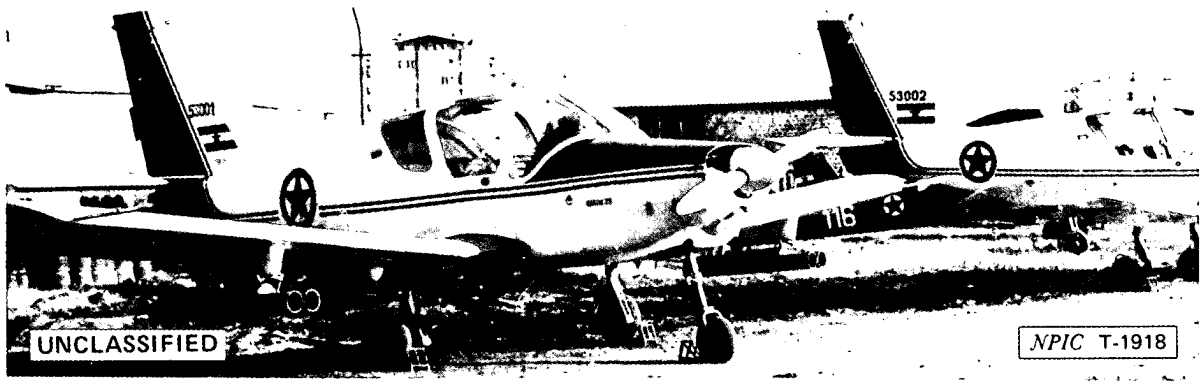

FIGURE 8. YUGOSLAVIAN UTVA-75 WITH UNDERWING ROCKET PODS

pods.[7] The Utva-75 was observed first at Pancevo on [redacted] and subsequently at Batajnica on [redacted] probably for testing.[4] Production of the Utva-75 began at Pancevo in 1976 and continued through [redacted] The Utva-75, intended primarily as a trainer aircraft, will eventually replace all the Czech-made Zlin-526 trainers in the Yugoslav Air Force (YAF) inventory.[9] An upgraded four-seat version of the Utva-75, designated Utva-78, has been reported,[10] but it has not [redacted]

18. (S/D [redacted] Production of fuselages for the Soko Orao (JUROM) at Pancevo has been reported[9] but has not been verified [redacted] The production site for the Orao is Mostar Airframe Plant Soko [redacted] 25X1 25X1 25X1 25X1

19. (S/D) Pancevo also produces a variety of automotive vehicles including ore transporters, dumptrucks, dump semitrailers, petroleum transporters, chemical transporters, cement trucks, pipe and log transporters, automobile transporters, and special trucks and trailers with changeable platforms for transporting animals.[11] Numerous trucks and trailers were observed at the plant on each coverage. 25X1 25X1

Research and Development (R&D)

20. (S/D) Two Polish M-18 Dromader aircraft were first observed at the plant on [redacted] The M-18 (Figure 4) is a high-performance agricultural aircraft developed with the assistance of the United States.[8] Since observations of the M-18 at Pancevo continue, and considering the advanced technology used in this aircraft, it is likely that Pancevo is involved in performance and structural evaluation/testing of the M-18. If this is true, future Yugoslavian aircraft could be significantly improved. 25X1 25X1

REFERENCES

IMAGERY

[redacted] 25X1

SMALL-FORMAT IMAGERY

Figure No	Source	Date	Classification
5	*The Aircraft of the World*, MacDonald & Co, London	1965	UNCLASSIFIED
7	*Jane's All the World's Aircraft*	1971-72	UNCLASSIFIED
8	*Jane's All the World's Aircraft*	1978-79	UNCLASSIFIED

MAPS OR CHARTS

DMA. US Air Target Chart, Series 200, Sheet 0251-17, scale 1:200,000 (UNCLASSIFIED)

DOCUMENTS

1. *Jane's All the World's Aircraft, 1958-1959* (UNCLASSIFIED)
2. *Jane's All the World's Aircraft, 1960-1961* (UNCLASSIFIED)
3. *Jane's All the World's Aircraft, 1971-1972* (UNCLASSIFIED)
4. NPIC. [redacted] *Batajnica Aircraft Assembly Plant, Yugoslavia (S)*, Mar 80 (TOP SECRET [redacted] 25X1 25X1
5. *The Aircraft of the World*, MacDonald & Co, London, 1965 (UNCLASSIFIED)
6. *Jane's All the World's Aircraft, 1974-1975* (UNCLASSIFIED)
7. *Jane's All the World's Aircraft, 1978-1979* (UNCLASSIFIED)
8. *Jane's All the World's Aircraft, 1980-1981* (UNCLASSIFIED)
9. DOD. IIR 1 521 0698 80, *Orao/Iar-93 Development (U)*, 31 Oct 80 (SECRET [redacted] 25X1
10. DOD. IIR 6 904 0064 8, *Aircraft Production (U)*, Mar 80 (SECRET/WNINTEL [redacted] 25X1
11. DOD. IIR 2 219 15S5 78, *Automobile Plant*, 15 May 78 (UNCLASSIFIED)

*Extracted material is classified SECRET/WNINTEL

REQUIREMENT

COMIREX J02
Project 541067J

(S) Comments and queries regarding this report are welcome. They may be directed to [redacted] 25X1
Warsaw Pact Forces Division, Imagery Exploitation Group, NPIC, [redacted] 25X1

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